REMARKS

Claims 1-8 are pending in the application. Claims 9-45 have been withdrawn as being directed to non elected subject matter.

Invention Synopsis

The present invention is directed to a lipid system comprising alpha-linolenic acid (C18:3n-3), omega-6 fatty acids, and omega-9 fatty acids, wherein the ratio of the omega-6 fatty acids to alpha-linolenic acid (C18:3n-3) is from about 0.25:1 to about 3:1, and the ratio of the omega-9 fatty acids to alpha-linolenic acid (C18:3n-3) is from about 0.4:1 to about 3:1.

It has been found that the lipid system of the present invention provides optimized ratios of essential and non-essential fatty acids that can improve the glucose tolerance of a glucose intolerant individual, improve the insulin sensitivity of an insulin resistant individual, and reduce the risk of vascular disease in a individual at risk for vascular disease.

Rejection under 35 USC 112

Claim 8 has been rejected under 35 USC 112, second paragraph, for reciting flaxseed oil, high oleic safflower oil, and corn oil limitations. The Examiner contends that such limitations lack antecedent basis in the claims. Applicants respectfully traverse this rejection.

Applicants submit that the limitations of claim 8 are not indefinite, that the recited oil blends have antecedent basis in the claims. One of ordinary skill in the art would appreciate that these oil blends are a source of the fatty acids recited in claim 1 from which claim 8 depends. And since claim 1 recites open ended comprising language, claim 8 can then recite oil blend sources of the amino acids of claim 1.

Applicants respectfully request withdrawal of this rejection in view of the foregoing remarks.

Rejection under 35 USC 102

Claims 1-7 have been rejected under 35 USC 102(b) as anticipated by U.S. Patent Publication 2004/0062847 (Koike). The Examiner contends that this particular reference, especially Example 3, discloses the relative amounts of fatty acids as recited in the present claims. Applicants respectfully traverse this rejection.

The Koike reference discloses oil/fat compositions comprising diglycerides (0.1-49.9%) and monoglycerides (5-99.9%). The monoglycerides have as fatty acid constituents n-3 fatty acids with less than 20 carbon atoms (15-90%), n-9 fatty acids (1-80%), and n-6 fatty acids (2-50%). Koike teaches that the disclosed compositions lower GOT and GPT levels in blood and are therefore useful in pharmaceuticals or foods for obese individuals or those afflicted with hepatic function disturbances.

The Koike reference exemplifies several oil/fat compositions (see page 5, Table 1) including Example 3 which comprises 3.8% triglycerides, 32% diglycerides, and 64.2% monoglycerides, wherein the fatty acids from the monoglycerides include C18:3 n-3 (40.5%), C18:1n-9 (34.5%), C18:2 n-6 (14.0%), C16:0 (7.7%), and C18:0 (3.0%). This reference does not disclose the total fatty acid content of the overall composition or the fatty acid content of the diglycerides and triglycerides in the formulation.

Applicants respectfully submit that the Koike reference fails to disclose each and every limitation of claim 1 of the present application. Claim 1 is limited to lipid systems comprising a select ratio of omega-6 fatty acids to alpha-linolenic acid (C18:3n-3) of from about 0.25:1 to about 3:1 and a select ratio of omega-9 fatty acids to alpha-linolenic acid (C18:3n-3) of from about 0.4:1 to about 3:1. Although Koike discloses (Example 3) a fatty acid profile from a monoglyceride component that may fall within these claimed ranges, it fails to disclose the total fatty acid profile of the overall composition because it does not disclose the fatty acids from the diglycerides and triglycerides that are also in the composition.

Applicants respectfully submit that the Koike reference would also fail to suggest or motivate the skilled artisan to reformulate a lipid system with the fatty acid profile of claim 1. Applicants found that such a system, with its selected fatty acid profile, provides improved glucose tolerance of a glucose intolerant individual, improved insulin sensitivity of an insulin resistant individual, and reduced risk of vascular disease in a individual at risk for vascular disease. The Koike reference fails to suggest such benefits, let alone reformulation with the fatty acid limitations of claim 1 to thus achieve such benefits.

Applicants respectfully request withdrawal of this rejection in view of the foregoing remarks.

Conclusion

Applicants respectfully request reconsideration of this application and allowance of claims 1-8.

Respectfully submitted,

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